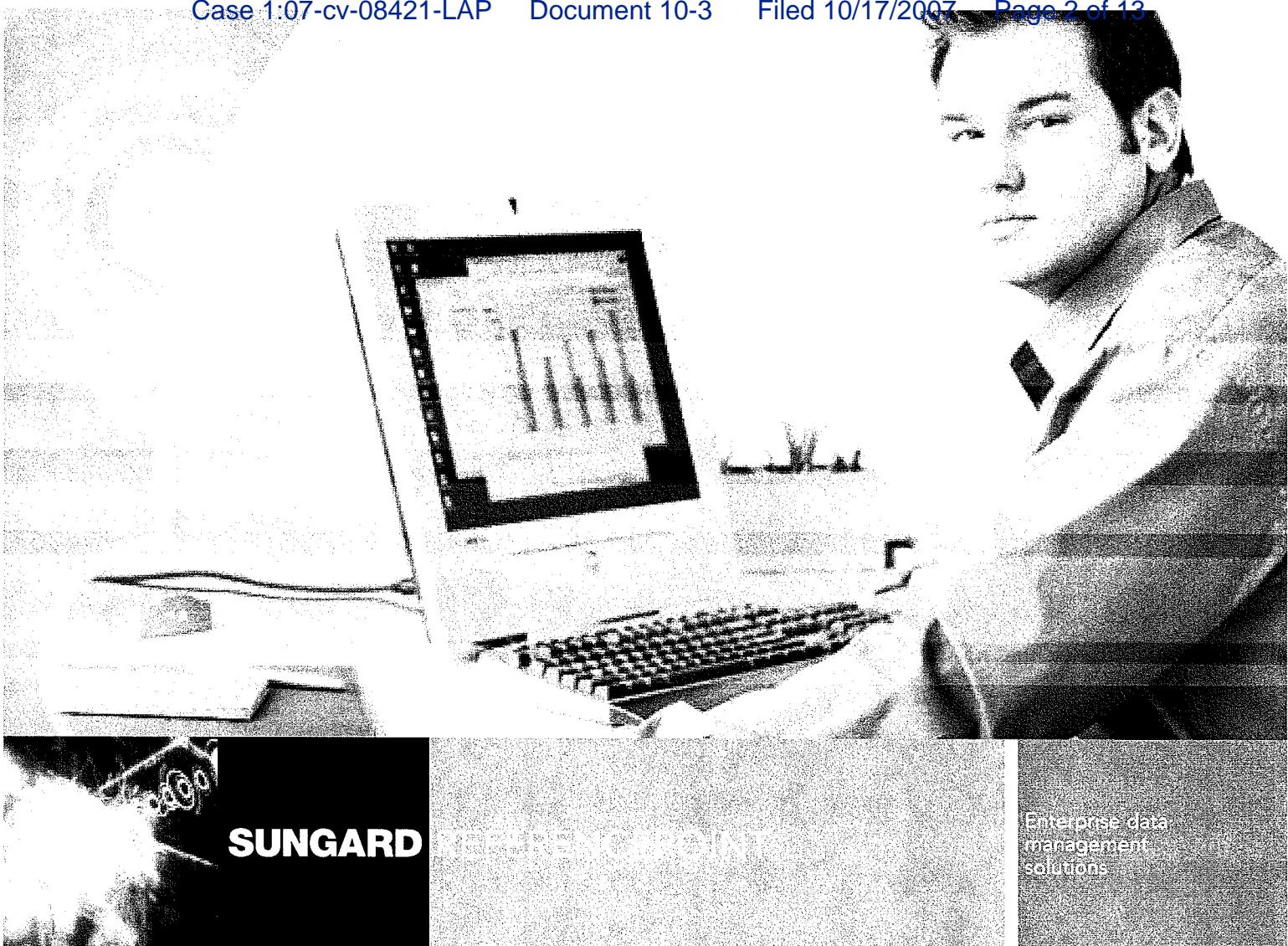


## EXHIBIT E



**SUNGARD**

Enterprise data  
management  
solutions

## REFERENCEPOINT

### FACING THE CHALLENGE: INDUSTRY DEMANDS

In a climate of tightening regulatory pressure, financial organizations are faced with the challenge of managing ever-increasing volumes of reference and market data across their enterprise. Poor quality or inconsistent data contribute significantly to operational risk, and can lead to lost revenue and wasted opportunities. Reconciling independent data silos spread across different business lines and managing the consolidation of multiple feeds delivered in disparate formats adds to this challenge. A coordinated approach to the enterprise data management problems offers benefits in cost-savings, while also opening up avenues for expanded growth.

### MEETING THE CHALLENGE: REFERENCEPOINT – ENTERPRISE DATA MANAGEMENT SOFTWARE

Developed around a scalable, extendible architecture, SunGard's referencePoint™ is designed to solve the problems associated with the collection, management and distribution of reference and market data across an enterprise. Provided as either licensed software or as part of a fully outsourced service, referencePoint offers a scalable component-based framework for the creation and control of global, enterprise-wide, "golden copy" reference and market data.

In addition to deployment at leading financial services organizations, referencePoint is used by SunGard itself in the management of its enterprise data operations center, offering the organization greater control, transparency and

efficiency in the day-to-day workflow around data management.

referencePoint comprises several modules, each designed to process and manage specific functional areas:

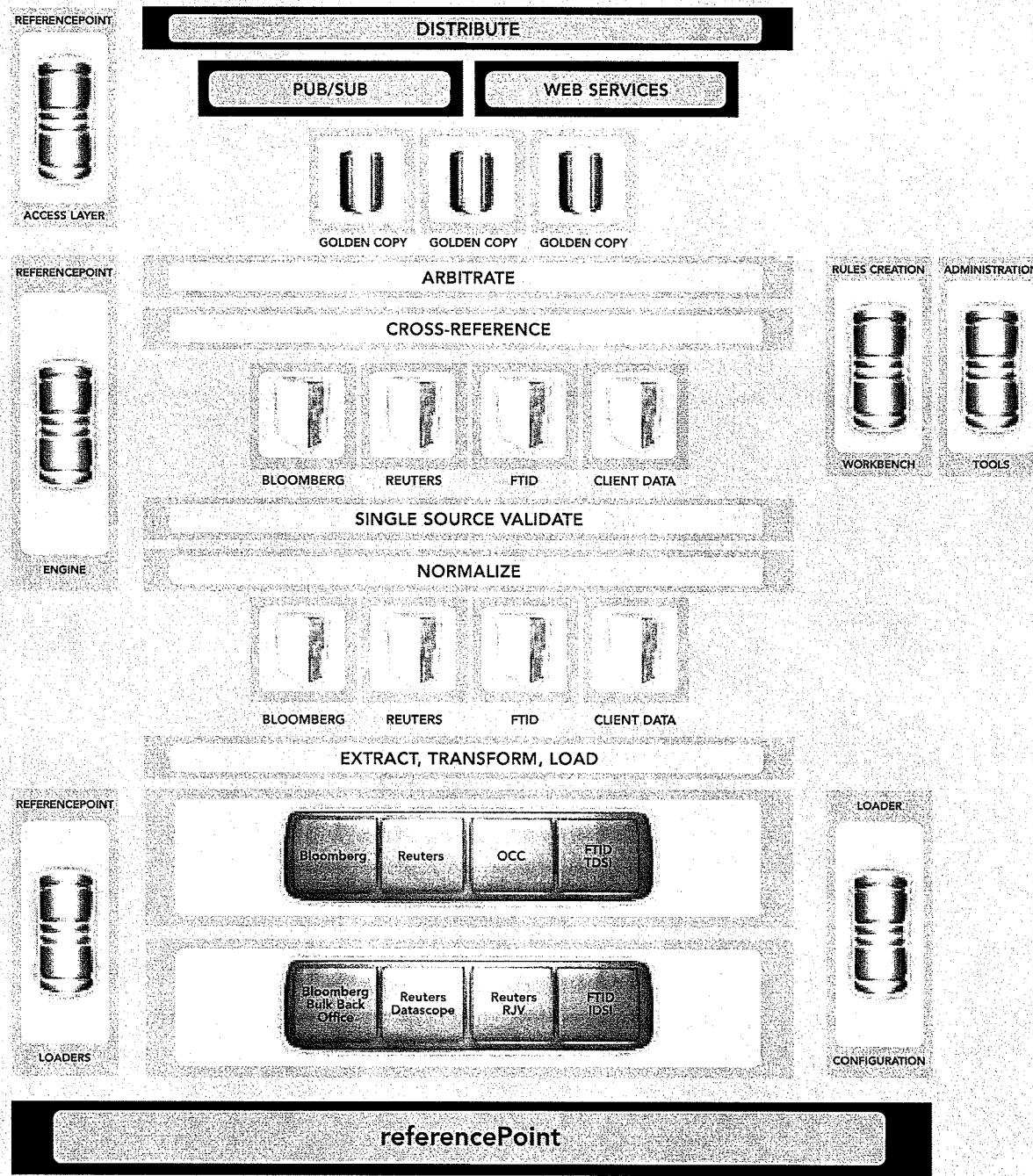
- referencePoint Data Loaders – built using a powerful data loader toolkit
- referencePoint Engine – responsible for the normalization, cross-referencing and validation of market and reference data
- referencePoint Access Layer – JMS-compliant pub/sub and web-services distribution layer

A proven solution to address a host of data management challenges, referencePoint offers the following key benefits:

- Increases the accuracy and consistency of reference and market data
- Reduces operational risk stemming from poor reference and market data
- Lowers costs by minimizing existing manually intensive reconciliation activities
- Increases trade processing efficiency
- Creates opportunities to share data between business lines

referencePoint's components can be customized to meet the needs of various downstream applications, including:

- Decision Support
- Trading
- Risk Management
- Portfolio Accounting
- Investment Management
- Compliance
- Third-party Analytical and Reporting Tools



## REFERENCEPOINT

### REFERENCEPOINT DATA LOADERS

PRECONFIGURED SUITE OF DATA LOADERS FOR LOCALLY MANAGED DATA DELIVERY - BUILT USING AN INTELLIGENT EXTRACT, LOAD AND TRANSFORM (ELT) TOOLKIT

referencePoint leverages a flexible and feature-rich home proprietary ELT toolkit that facilitates the deployment of new loaders. Driven by XML configuration files, vendor's content can be parsed, transformed and loaded according to specified logic. The resulting loaders are seamlessly integrated with the core referencePoint Engine, with messaging used to synchronize the subsequent validation of loaded data.

Several standard "out-of-the-box" meta-data configurations for common vendor feeds, such as Reuters® DataScope, FT Interactive Data TDSI® and Bloomberg® Data License are available.

### REFERENCEPOINT ENGINE

#### CORE NORMALIZATION, CROSS-REFERENCING AND VALIDATION ENGINE

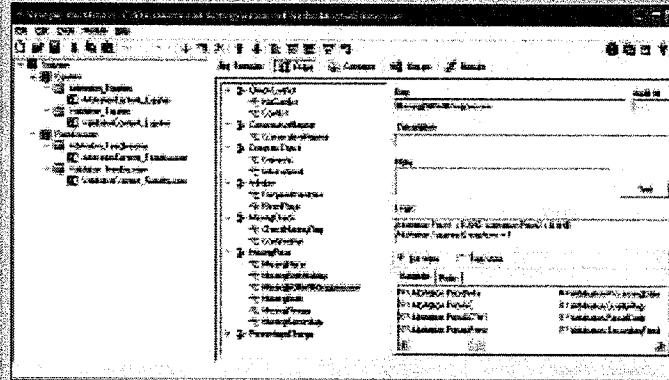
The referencePoint Engine allows multiple data sources to be normalized, cross-referenced and validated by user-defined logic. The set of pre-packaged rules can be enriched using the system's intuitive Rules Creation Workbench, which allows customized cross-referencing and validation logic to be defined.

- **Intelligent Scheduling:** referencePoint's Unit-of-work concept allows the processing of data to be scheduled based on the arrival of pre-defined sets of files or other external triggers.
- **Flexible Business Logic Creation:** referencePoint's Rules Creation Workbench provides enhanced capabilities for creating business logic around the reconciliation and validation of records from multiple internal and external sources.
- **Automated cross-referencing of unrecognized securities:** Intelligent score-based matching algorithms are used to reconcile new securities across the appropriate feeds.
- **Multi-stage Processing:** referencePoint provides the ability to apply source-specific validation routines to create clean single-source data, before reconciliation and arbitration of multiple sources ultimately take place in the creation of "golden copy" data.

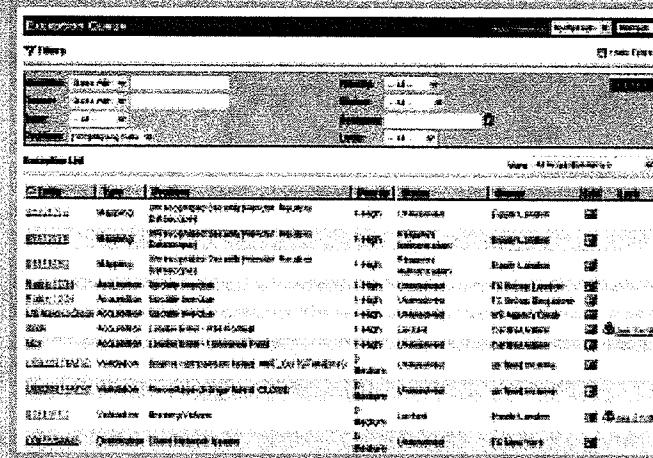
Field Table for Record Type `ExLListplicatedRing`

Field	display_name	description	type	format	value	value_type	value_label
ExLList	ExLList	EXL List of Vendor Data	STRUCT	STRUCT	10	INT32	10
VendorList	VendorList	VendorList	STRUCT	STRUCT	10	INT32	10
Features	Features	Vendor Features	STRUCT	STRUCT	10	INT32	10
CPNA	CPNA	CPNA	STRUCT	STRUCT	10	INT32	10
VendorListCount	VendorListCount	Count of the VendorList	STRUCT	STRUCT	10	INT32	10
ExL	ExL	Vendor Record	STRUCT	STRUCT	10	INT32	10
ExLFeatureList	ExLFeatureList	Vendor Feature Record	STRUCT	STRUCT	10	INT32	10
Attributes	Attributes	Vendor Attributes	STRUCT	STRUCT	10	INT32	10
CPN	CPN	CPN	STRUCT	STRUCT	10	INT32	10
AttributesCount	AttributesCount	Count of the Attributes	STRUCT	STRUCT	10	INT32	10
ExLFeature	ExLFeature	Vendor Feature Record	STRUCT	STRUCT	10	INT32	10
AttributesList	AttributesList	Vendor Attribute Record	STRUCT	STRUCT	10	INT32	10
ExLAttribute	ExLAttribute	Vendor Attribute Record	STRUCT	STRUCT	10	INT32	10
AttributesCountList	AttributesCountList	Count of the AttributesList	STRUCT	STRUCT	10	INT32	10
AttributesCountListCount	AttributesCountListCount	Count of the AttributesCountList	STRUCT	STRUCT	10	INT32	10
AttributesCountListCountCount	AttributesCountListCountCount	Count of the AttributesCountListCount	STRUCT	STRUCT	10	INT32	10

XML meta-data files describe the parsing and logical conversion of data-feeds.



The referencePoint Rules Creation Workbench allows users to define their own business rules in an intuitive environment.



ReferencePoint Workbench Exception Queue.



- **Exception Resolution Workflow:**

Graphical interfaces are available to resolve exceptions produced during different stages of processing, and control the ultimate release of golden copy data to downstream systems.

- **Comprehensive Auditing:** All changes made to both raw and golden copy data are recorded, and full operational logs record system events.

- **Data Quality Reporting:** Reports tracking vendor performance, including timeliness, completeness and data quality, can be generated.

- **Scalable architecture:** referencePoint is built

in Java around an extendible servlet-based architecture that can be enhanced with custom services. A distributed architecture allows processing to be spread across resources.

- **Multiple Golden Copies:** Different vendor hierarchies and validation rules can be applied to the same raw vendor data, thereby allowing multiple interpretations of "golden copy" data.

## REFERENCEPOINT

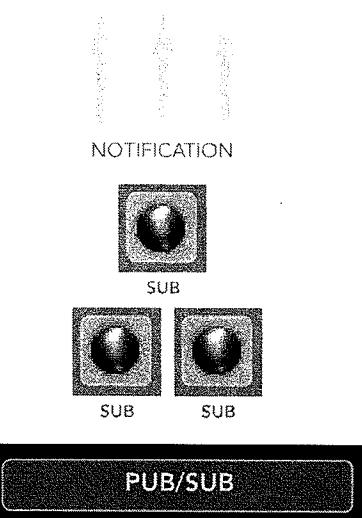
## REFERENCEPOINT ACCESS LAYER

## WEB-SERVICES DISTRIBUTION AND JMS-COMPLIANT MESSAGING FOR APPLICATION INTEGRATION

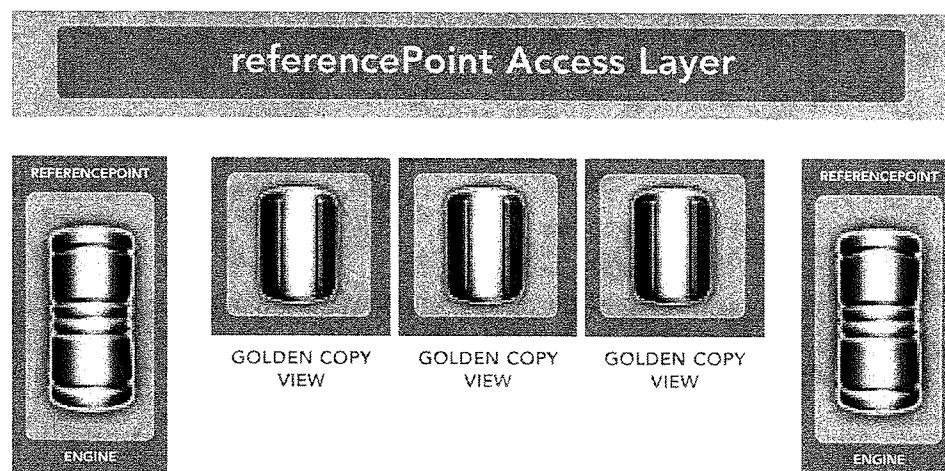
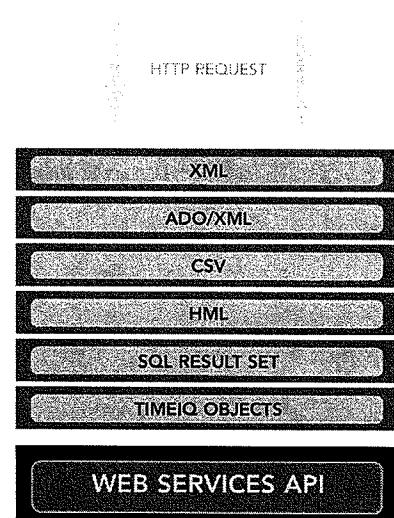
referencePoint offers two main distribution technology options:

- It supports the publication of configurable message types onto JMS-compliant message bus infrastructures. Data Quality Flags allow consuming systems to track the quality of published data.
- It provides a HTTP request/response mechanism for requesting current raw and validated data, price histories and audit logs.

## Request/Response – Pull



## Request/Response – Pull



## A SCALABLE ARCHITECTURE THAT GROWS TO MEET CLIENT'S NEEDS

referencePoint's architecture is able to scale from deployments handling smaller, modest sized data universes to larger enterprise solutions; our clients are able to grow their referencePoint solutions over time to accommodate increasing demands in data volumes and tighter processing windows.

Built in Java, the referencePoint Engine can be deployed on Solaris or Linux, using the client's choice of JDBC-compliant RDBMS and JMS messaging infrastructure.

## REFERENCEPOINT MANAGED DATA SERVICE

The referencePoint Managed Data Service leverages SunGard's heritage in the both the availability and software processing spaces to offer a fully outsourced data management offering: the referencePoint software is hosted on SunGard *infrastructure* and operated by SunGard data integrity and operations staff. Client Service Level Agreements govern the constraints around key service dimensions such as system availability and data timeliness and quality.

*A flexible approach to outsourcing:*

The solution does not impose a "one-size-fits-all" approach, but allows clients to retain full discretion over which data sources are to be managed, the periodicity of their updates, and the methodologies used in the normalization, validation and enrichments processes.

Moreover, clients can also choose to retain control of certain aspects of their data management processes, or use existing components within the Managed Data Service framework, thereby presenting options around the phased outsourcing of client processes.

## EXPERIENCED CONSULTING TEAM TO ENSURE SUCCESS

To help facilitate the planning and implementation of an enterprise data management solution, clients can choose to employ the services of SunGard Consulting Services. SunGard draws on our expertise in this space to offer specialized professional services (including project management, enterprise integration, custom development, and business intelligence analysis), and work with a client to derive higher performance levels from their people, processes, and technology.

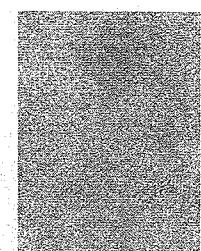
## SUNGARD

With annual revenue of \$4 billion, SunGard is a global leader in software and processing solutions for financial services, higher education and the public sector. SunGard also helps information-dependent enterprises of all types to ensure the continuity of their business. SunGard serves more than 25,000 customers in more than 50 countries, including the world's 50 largest financial services companies.

[www.sungard.com](http://www.sungard.com)



referencePoint offers a scalable component-based framework for the creation and control of global enterprise-wide "golden copy" reference and market data.



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## EXHIBIT F

## Golden Copy Platform | Case Study for Pictet & Cie

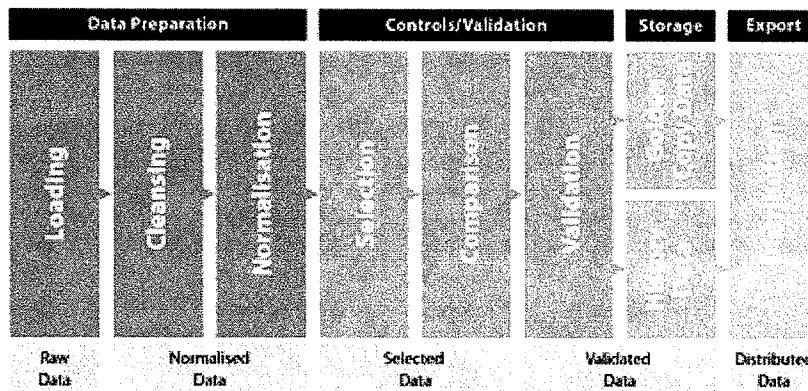
AIM Software used its modular reference data management platform GAIN to implement a large-scale "golden copy" platform for Switzerland's largest private bankers Pictet & Cie.

Download this article as printable PDF 

- GAIN for a golden copy based on several data feeds
- Derivation of unique prices
- Ad-hoc opening of new instruments

By the end of 2004 Pictet & Cie decided to implement the GAIN reference data management platform as a central data hub for securing the data quality in feeding its entire back office environment. The initial goal of the project was an integration based on three feeds, ie Telekurs VDF (Valor Data Feed), Reuters DataScope and Bloomberg DataLicense, in order to increase the quality of the back office security data management and the connected daily, largely manual, processes.

Now GAIN handles the central data enrichment and the feeding of Pictet & Cie's core banking application Avaloq and other applications and processes.



### Golden copy as principal motivation

In order to speed up the implementation time, Pictet & Cie and AIM Software decided to enter a very close partnership to standardize the reference data management throughout the bank. The final objective of the project was the creation of a central security master file or golden copy with interfaces to several data feeds.

A further demand was the "ad hoc" straight through feeding of back office applications with data for opening new instruments and mutating existing data.

"After evaluating several solutions on the market we chose GAIN because of AIM's expertise in the integration of financial data feeds, especially of the Telekurs VDF. We were looking for an advanced and open solution which could use pricing and basic data information from Telekurs, Reuters and Bloomberg to create and manage a golden copy," says Christophe Ansermoz, Project Manager at Pictet & Cie.

### Large amount of instruments requires data scrubbing

As Pictet & Cie relies on multiple data sources, the data had to be combined, filtered and partially enhanced. Golden copy management platforms such as GAIN help to reduce potentially error-prone and time-consuming manual processes. GAIN handles the entire process from collecting, cleansing, reformatting, validating and consolidating the data to prepare it for business use.

The most challenging part in a golden copy project is, on the one hand, to maximize the automation by providing automatic data scrubbing and, on the other hand, combining this with intuitive tools for manual exception handling and validation for speeding up the inevitable remaining final user decisions.

### **Comprehensive solution covers Pictet & Cie's needs**

GAIN covers the whole data management workflow at Pictet & Cie, from an automatic or manual request up to the straight-through export of the prices and basic data in any format to connected back office or front office applications. GAIN provides a step-by-step approach for data loading and preparation, validation and distribution of financial data from 15 of the world's leading commercial data feeds as well as from proprietary sources (eg bank internal data). GAIN accompanies all these processes by monitoring functionality and an intuitive user interface.

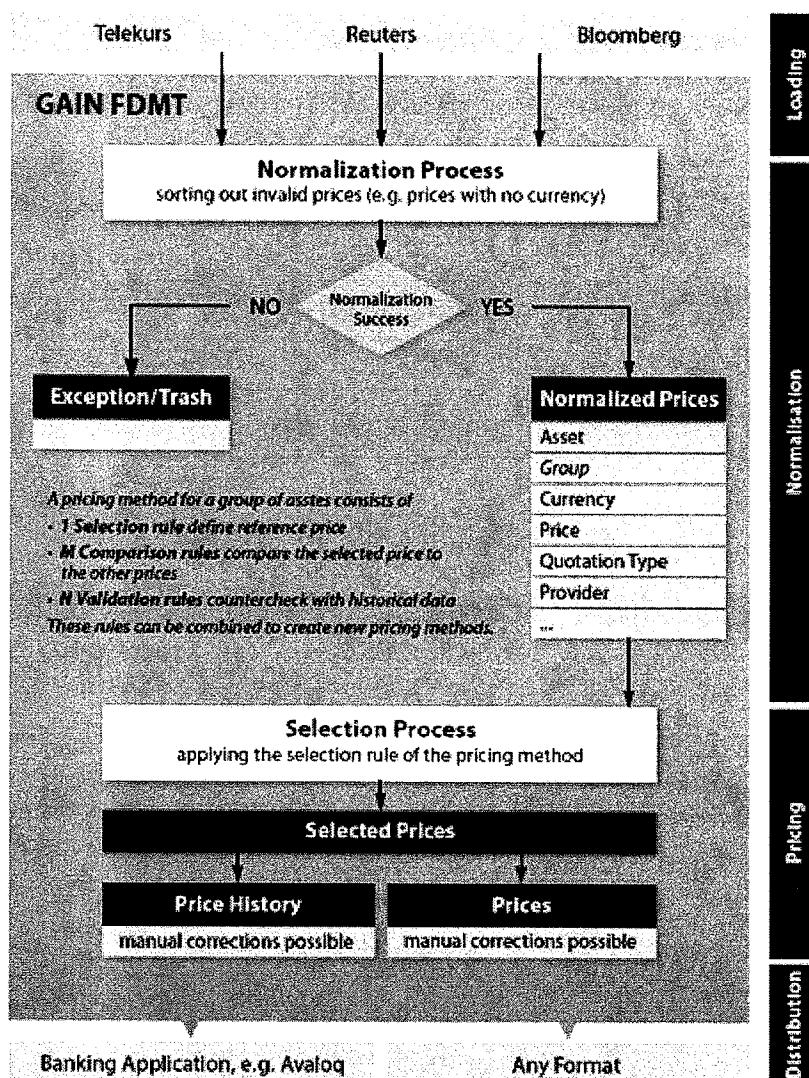
As shown above, before creating the final golden copy, the data is passed through a staging area, containing the full range of raw data of all supported data feeds in an optimized storage structure. The cleansing, checking or application of rules takes place during the transformation of the data from the staging area into the golden copy. Target systems can be supplied by data from both the staging area and the golden copy.

### **Ad hoc opening of securities**

GAIN supports an ad hoc/intra-day opening of securities. Thus, GAIN automatically identifies whether the data is already available in the golden copy or if it has to be fetched from a provider. If necessary, the data is then requested in a synchronous process from the data provider. Thereafter it takes Pictet & Cie only a few minutes to open new instruments directly in their core banking application, Avaloq. GAIN can act both as a master, handling all user interactions, or a slave that will be triggered by the target application.

### **Prices from multiple sources at different times**

GAIN's pricing process covers every single aspect for deriving a unique best price per asset-currency combination for the back office. By applying automatic rules defined by the bank, an improved data quality and a swift validation of price data can be achieved at Pictet & Cie.



The pricing module of GAIN is based on an open and flexible architecture, allowing for the receipt of data from Telekurs Financial, Reuters and Bloomberg and other feeds at different time intervals. Financial data frequently proves to be inconsistent in quality, content and format. The pricing process addresses this issue by using the comprehensive tools of the GAIN platform to identify and eliminate suspect data. Data can be manipulated by using GAIN workflows which can easily be added through the workflow management module.

"AIM's solution allows us to comprehensively automate our back office data management processes. We are able to improve our data quality while having interfaces to several data feed providers and target applications," concludes Christophe Ansermoz.

#### About Pictet & Cie

Founded in 1805 in Geneva, Pictet & Cie is today Switzerland's largest private bank, and one of the premier independent asset management specialists in Europe, with over CHF 317 billion in assets under management and custody as at end of March 2006.